



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,482	03/15/2004	Ramakrishna S. Budampati	H0005509 (256.193US1)	9303

21186 7590 02/06/2007
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER

GONZALEZ, AMANCIO

ART UNIT PAPER NUMBER

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/800,482	Applicant(s) BUDAMPATI, RAMAKRISHNA S.	
	Examiner Amancio Gonzalez	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/15/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/15/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-4, 6, 9-13, and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holdrege et al. (US Pat 6845087), hereafter "Holdrege", in view of Fuerter (US Pat 6125109), hereafter "Fuerter".

Consider claims 1, 10, and 16-19, Holdrege discloses a wireless network comprising multiple first wireless nodes that transmit signals (**first wireless nodes reads on source nodes -see Holdrege: col. 1 lines 6-28; col. 2 lines 50-59; col. 3 lines 22-29**). Holdrege discloses multiple independent infrastructure nodes that receive the transmitted signals, wherein at least two infrastructure nodes receive a transmitted signal from a single first wireless node(**infrastructure nodes reads on**

source node -see Holdrege: Abstract; col. 2 lines 64-67; col. 3 lines 1-12, 30-39, 50-59).

Holdrege discloses signal transmission and reception over a CDMA, which inherently implements rake or diversity receivers, but fails to mention a module or combiner for combining at least two of the signals received at the multiple independent infrastructure nodes to estimate the signal transmitted by the single first wireless node. Fuerter discloses a diversity and CDMA rake receiver for combining multi-path received signals (**see Fuerter: Abstract; col. 10 lines 48-55; col. 11 lines 47-55**).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Holdrege and have it include multi-path signal combining module, as taught by Fuerter, thereby providing hubs wireless interlink in a communication system, as discussed by Holdrege (**see Holdrege: Abstract; col. 2 lines 58-59**).

Consider claims 2 and 20, Holdrege, as modified by Fuerter, teaches claims 1 and 19 above, and further discloses a central controller (central controller reads on system controller –see Holdrege: col. 9 lines 20-22; fig. 6A element 620).

Consider claims 3, 4, 11, and 12, Holdrege, as modified by Fuerter, teaches claims 1, 2, and 10 above respectively, and further discloses hardwire or wireless connections of data sources to the controller (data sources reads on nodes –see Holdrege: col. 9 lines 25-32).

Consider claims 6, 13, 15, and 21 Holdrege, as modified by Fuerter, teaches claims 1, 10, 13, 19, and 22 above respectively; and Fuerter further discloses diversity techniques (see Fuerter: Abstract; col. 1 lines 6-12; col. 2 lines 24-43).

Consider claim 9, Holdrege, as modified by Fuerter, teaches claim 1 above; and Fuerter further discloses signal combination (see Fuerter: Abstract; col. 1 lines 6-12, col. 2 lines 24-44).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holdrege et al. (US Pat 6845087), hereafter "Holdrege", in view of Fuerter (US Pat 6125109), hereafter "Fuerter", as applied to claim 1 above, further in view of Partyka (US Pat 6058137), hereafter "Partyka".

Consider claim 5, Holdrege, as modified by Fuerter, teaches claim 1 above, but does not show sensors associated with transmission of sensed parameters. Partyka discloses sensors associated with transmission of sensed parameters (see Partyka: Abstract; col. 1 lines 5-10; col. 3 lines 40-53). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Holdrege and Fuerter and have it include sensors associated with transmission of sensed parameters, as taught by Partyka, thereby providing synchronization means among the various transmitters and additionally gaining control on the power consumption of battery operated transmitters (see Partyka: col. 3 lines 48-53).

5. Claims 7, 8, 14, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holdrege et al. (US Pat 6845087), hereafter "Holdrege", in view of Fuerter (US Pat 6125109), hereafter "Fuerter", as applied to claims 6, 13, and 21 above, further in view of Smee et al. (US Pat 6990137), hereafter "Smee".

Consider claims 7, 14, and 22, Holdrege, as modified by Fuerter, teaches claims 6, 13, and 21 above, but does explicitly show channel coefficients for combining signals. Smee discloses channel coefficients for combining signals (see Smee: Abstract; col. 5 lines 47-56; col. 14 lines 30-53). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Holdrege and Fuerter and have it include channel coefficients for combining signals, as taught by Smee, thereby providing a method for determining weight parameters two recombined a diversity received signal in a wireless communication system.

Consider claims 8 and 23, Holdrege, as modified by Fuerter and Smee, teaches claims 7 and 22 above respectively; and Fuerter further discloses diversity techniques (see Fuerter: Abstract; col. 1 lines 6-12; col. 2 lines 24-43).

Conclusion

6. Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amancio González, whose telephone number is (571) 270-1106. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Application/Control Number: 10/800,482

Page 7

Art Unit: 2617

Amancio González

AG/ag

January 24, 2007

Nick Corsaro
NICK CORSARO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600